

USAWC STRATEGY RESEARCH PROJECT

**NUCLEAR PROLIFERATION: A GLOBAL NUCLEAR STRATEGY**

by

Colonel Tadao Maeda  
Japan Ground Self Defense Force

Dr. Lawrence M. Blotzer  
Project Adviser

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College  
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>30 MAR 2007</b>	2. REPORT TYPE <b>Student Research Project</b>	3. DATES COVERED <b>00-00-2007 to 00-00-2006</b>			
4. TITLE AND SUBTITLE <b>Nuclear Proliferation A Global Nuclear Strategy</b>		5a. CONTRACT NUMBER			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S) <b>Tadao Maeda</b>		5d. PROJECT NUMBER			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050</b>		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <b>See attached.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>25</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## **ABSTRACT**

AUTHOR: Colonel Tadao Maeda  
TITLE: Nuclear Proliferation: A Global Nuclear Strategy  
FORMAT: Strategy Research Project  
DATE: 30 March 2007      WORD COUNT: 6,187      PAGES 25  
KEY TERMS: Nuclear Strategy Model, Perception, Impacts  
CLASSIFICATION: Unclassified

Nuclear weapons have been used only once in world history. They are now considered a "wildcard" by the nations that possess them. Recently North Korea conducted a nuclear test in its attempt to gain a wildcard of its own. North Korea's nuclear ambitions are a critical issue for Far East Asia, including Japan. What are North Korea's intentions concerning building and using nuclear weapons? This SRP begins by seeking an answer to this question.

The global initiative to halt nuclear proliferation may be forced to change because recently two more countries – Pakistan and North Korea – have built nuclear weapons despite the Non-Proliferation-Treaty. We must re-analyze, both strategically and politically, international attempts to prevent acquisition of nuclear weapons. This SRP describes and analyzes Pakistan's and North Korea's successful acquisition of such weapons.

According to "The Nuclear Tipping Point; Why States Reconsider Their Nuclear Choices", Many countries intended to obtain the nuclear weapons during Cold War era. However, the situation has changed dramatically. No matter who is next to join the nuclear weapons club, it is important that this new member observes reasonable restraint in their strategies for the use of such devastating weapons.



## NUCLEAR PROLIFERATION: A GLOBAL NUCLEAR STRATEGY

Many experts have analyzed nuclear strategy. However, nuclear (atomic) weapons have not been employed as weapons of war since the U.S. used them to end World War II in 1945. During the Cold War, nuclear weapons were used as “wildcards”<sup>1</sup> both politically and diplomatically. They continue to be used in this way. But there is increasing apprehension that non-state actors may gain access to them, but will not observe traditional constraints on their use.

Almost everyone agrees on the definition of nuclear weapons. But we usually need to specify how nuclear weapons are different from other weapons. This question helps us analyze nuclear strategy. The lessons of the Cuban missile crisis<sup>2</sup> also provide some useful insights in this regard.

Actors in the Global War of Terrorism (GWOT) may be non-state belligerents. They add a new and troubling dimension to nuclear strategy. My nuclear strategy model addresses these new actors. I will analyze nuclear strategy in the context of the Cold War as well as in the context of Pakistan’s and North Korea’s recent acquisitions. Further, I must consider the possibility that non-state actors may acquire nuclear weapons in the near future.

On the other hand, we have to analyze their nuclear strategy carefully, because in the past nuclear powers acted rationally. However, we must now acknowledge that new parties acquiring nuclear weapons, particularly non-state actors, may not act rationally or engage their targets before thinking about them.

### A Nuclear Strategy Model

My nuclear strategy model acknowledges the common characteristics of models employed by established nuclear powers, including the U.S., USSR, UK, China, and France:

- (1) They announced their intentions to acquire nuclear weapons and demonstrated their capabilities.
- (2) They did not make public their targeting strategies.
- (3) They took diplomatic advantage of their nuclear capabilities.

Nuclear weapons are called strategic weapons – and this is an essential component of my nuclear strategy model. In his *Essence of Decision*<sup>3</sup>, Graham T. Allison highlights the most important factors built into the model, which includes both an internal function and an external function, as depicted in Figure 1. (The yellow portion shows the “Internal” function, the white one the “external” function.)

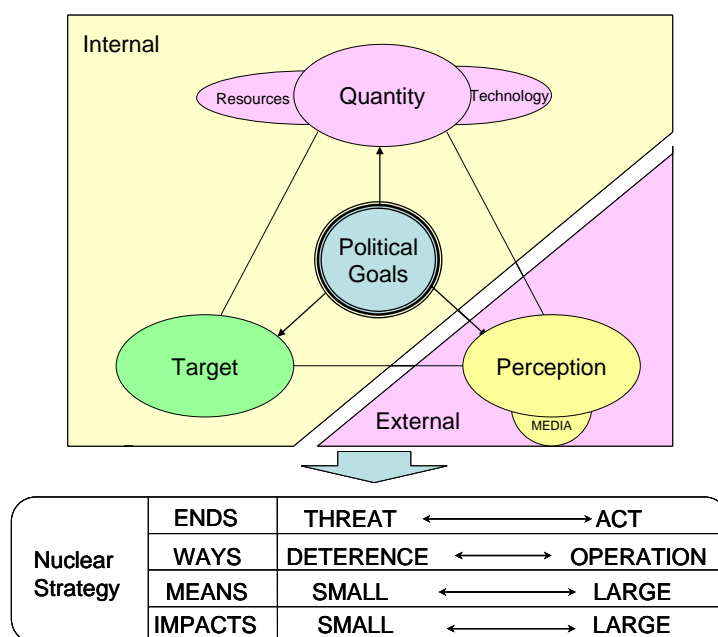


Figure 1. Nuclear Strategy Model (Hypothesis)

First of all, the quantity of nuclear weapons indicates a nation's capability to carry out nuclear war. During the Cold War, it was most important for nuclear powers to convince potential adversaries of the number of nuclear warheads they could deliver. Rival actor-nations then considered the damage they faced and thus exercised self-control in order to avoid a nuclear exchange. This is nothing less than the theory of deterrence<sup>4</sup>. But consider another point - deterrence might not assume a standoff even if a nuclear power did not show its capability. Therefore quantity is not the only factor in a nuclear strategy. Quantity has a close relation with political goals. When we consider nuclear strategy, we must think about both quantity and political goals. In his book *Nuclear Terrorism: The Ultimate Preventable Catastrophe* Graham. T. Allison cites nations' reasons for acquiring nuclear weapons; for purposes of security, for prestige and advantages in domestic politics. Certainly, some states still seek nuclear weapons for these reasons. But the present situation is more complex, and a party's goals in seeking nuclear weapons may not be apparent or rational.

Second, how does a nuclear power reveal its targeting strategy to a rival? We know it is very important for rival actors to identify potential targets in order to devise countermeasures. Yet during the Cold War the nuclear rivals conceded that countermeasures were essentially futile because the nuclear weapons were too destructive to counter. This is nothing less than the theory of Mutually Assured Destruction (MAD)<sup>5</sup>. But this concept does not always pertain in the present situation because MAD applies only to declared nuclear powers. Therefore we must consider the connection between targeting, quantity, and political goals.

Why do nuclear weapons have strategic effects? Nuclear weapons can inflict a great deal of damage and destroy extensive resources. This is certainly a fact. However, this fact is not a factor of strategy. Nuclear weapons have only been used once in world history, against Japan. No one can understand the power of nuclear weapons better than the Japanese. So perception becomes a very important factor, because perception is related both to the quantity of nuclear weapons and to their targets. In fact, the U.S. offered several scenarios during the Cuban crisis in order to shape perceptions and discourage the USSR from a nuclear launch.

We confront a fundamental dilemma in contemplating the use of nuclear weapons – they are not really feasible weapons for a nation-state. Nuclear weapons are too dangerous because they are too destructive, and they precipitate has enduring after-effects. People cannot use the land, the necessities of life are destroyed, and people continue to suffer from radiation poisoning in the wake of nuclear use.

So we need to analyze the factors relevant to national or organizational strategies. Usually we use an Ends, Ways, and Means framework<sup>6</sup>. But in analyzing the nuclear strategy of nations or organizations it is necessary to consider four strategic factors: Ends, Ways, Means, and Impacts. By Impact, I mean the effect the nation's nuclear strategy has on neighboring countries and world situation.

My nuclear strategy model thus focuses on the relationship between actors' recognition and awareness, and the size of arsenals (quantity) and targeting strategies of nuclear powers. Of course, sometimes, their behaviors are not rational. So impacts are very important. Some Impacts are so significant that the international community takes strong countermeasures to stop nuclear proliferation, e.g. Iran and North Korea. Each country that intends to build nuclear weapons must consider the impact of holding such weapons. And if they are not rational, they realize that their program still must be executed rationally. This is very ironic, but the essence of my model.

### Verification of the Model

#### The Cold War

First I will examine nuclear strategy during the Cold War. The actors during the Cold War, of course, were nation-states. During the Cold War, nuclear strategy was enabled by bipolar groups – the U.S.-led North Atlantic Treaty Organization (NATO) and the USSR-led Warsaw Treaty Organization (WTO).

## NATO versus WTO

Figure 2 depicts the Cold War environment. Figure 7 on page 10 gives an expanded view of the classification of nuclear strategies. The Cold War strategy was based on Escalation<sup>7</sup> and Deterrence; it relied on the quantity of nuclear warheads and the perceptions by each group of the other group's intentions and capabilities.

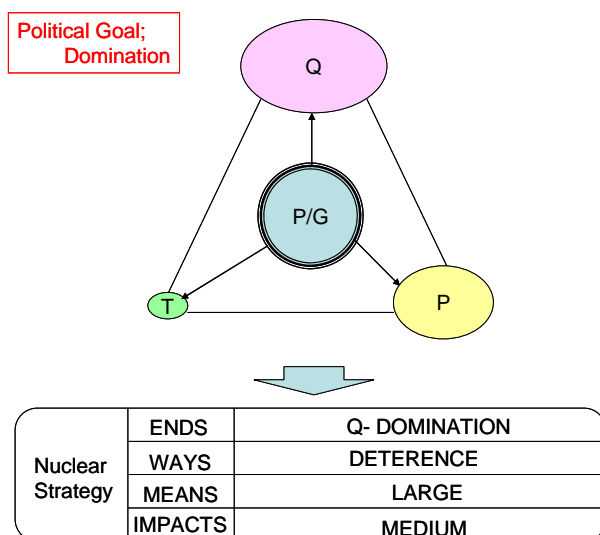


Figure 2. Cold War NS Model

The two groups negotiated a variety of arms control treaties<sup>8</sup> and related arrangements<sup>9</sup>. Their strategic goal in negotiations was to achieve their national interests diplomatically or politically. Therefore, both the quantity of nuclear warheads and the rival's perceptions were essential factors in their strategy. For example, at a certain point perceptions of U.S. nuclear power shifted from the quantity of nuclear warheads to the nature of its launch system<sup>10</sup>, including ground, air, and sea launch platforms.

Both U.S. and USSR exercised rational critical thinking and used negotiation to achieve strategic goals. So the impacts of their nuclear strategy were relatively benign: there was no nuclear war. Usually they continued to conduct their peaceful negotiations.

### *The Cuban Missile Crisis*

The Cuban Missile Crisis is very revealing. The emplacement of Soviet nuclear missiles in Cuba exposed the U.S. to a fatal risk. So in this case the strategic goal of USSR strategy was to gain strategic domination by placing nuclear warheads in Cuba. This strategy did not depend on quantity. According to *Essence of Decision*, the U.S. reacted cautiously in spite of the rash USSR action. My strategic model is based in part on evidence of U.S. behavior during this crisis.



We have only a limited record of USSR thinking at that time. However, the Soviet decision to remove the missiles demonstrated the effectiveness or success of deterrence in nuclear strategy.

By the way, did USSR pursue a rational strategy during this crisis? Of course, it was rational because USSR wanted the U.S. to acknowledge the threat that the U.S. nuclear weapons in Turkey posed to USSR. But the impact of Soviet strategy was too big. We have to realize that USSR did not sufficiently consider their strategy's impact. To deliver a strategically important message to the United States regarding U.S. nuclear weapons in Turkey, the USSR nearly plunged the world into a nuclear war.

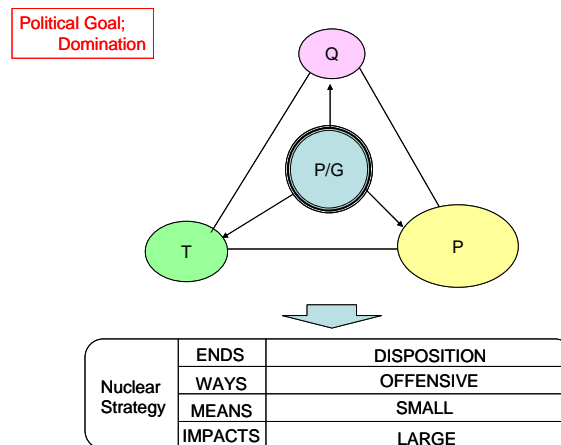


Figure 3. Cuban-crisi NS Model

### India

Consider one more case: India built its nuclear weapons while the Non-proliferation Treaty (NPT) was in effect. What was India's nuclear strategy? At that time India's primary strategic goal was to dominate Pakistan and deter China. So the international community initially sanctioned India's nuclear program. Then India's nuclear program served to balance Pakistan's program and China's nuclear capability. In the end, the international community has accepted India as a legitimate nuclear power. We cannot be certain of India's strategy, but India not only succeeded in building nuclear weapons but also in gaining acceptance by the International community as a legitimate nuclear power. So we must admit that their strategy has been successful.

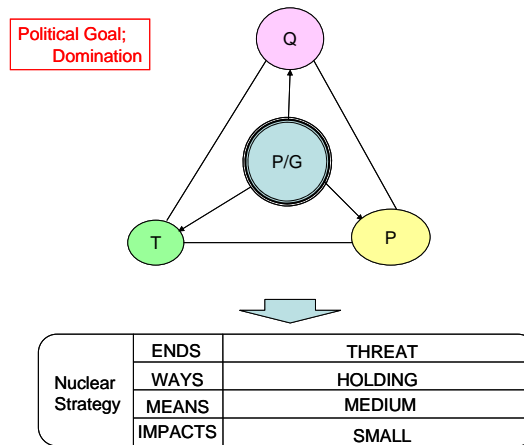


Figure 4. Indian NS Model

### The Efficiency of the Model

Why do we have to consider the nuclear strategy model now? Having failed to negotiate North Korea to abandon its nuclear weapons program, the U.S. changed the strategy against North Korea from treaty-based negotiation to Proliferation Security Initiative (PSI) type negotiation. The reason for this change in U.S. strategy is that U.S. considers that it needs countermeasures (PSI) that complement its power of deterrence against North Korea.

My strategic model rests on the following assumptions: The political goal of nuclear nations is to share the prestige of being a nuclear nation, even though nuclear proliferation complicates a global strategic environment that is volatile, uncertain, complex, and ambiguous, (VUCA). Further, nations acquire nuclear weapons to achieve a power balance with rival nations.

Transparency among nuclear nations serves as a deterrent and contributes to global and regional stability. Therefore the most important component of nuclear strategy is announcement of the intention to build nuclear weapons. As long as such intentions are known and relevant activities are transparent, all nations can devise effective nuclear strategies.

### Case-study

Now consider the cases of Pakistan and North Korea. Their nuclear programs provide clues on how to control nuclear weapons and other weapons of mass destruction.

In the context of Pakistan's rivalry with India, it is easy to understand Pakistan's strategy. On the other hand, some authorities claim the North Korean case is more complex because its strategy is obscure. However, North Korea had a political goal in announcing that it possessed nuclear weapons.

## The Pakistani Case

Pakistan developed its nuclear weapons during the NTP regime, while international sanctions were imposed on Pakistan. Could other countries follow this example and build nuclear weapons with relative impunity? It seems that the Pakistani and Indian programs were accepted in a Cold War context. The two rival countries used the programs to achieve a regional balance of power; they were deterred from using the weapons for fear of mutually assured destruction. Further, their arsenals posed little threat beyond the bounds of their regional rivalry. However, there is concern about the safety and security of their programs, especially that of Pakistani nuclear weapons.

Consider Pakistan's strategic environment: It is constantly threatened by India on one front and by militant Islamists operating along the Afghan border. Strategically, Pakistan uses its nuclear weapons to keep India in check while it conducts tactical actions to gain control of its border with Afghanistan.

As a nation founded on the premises of Islam<sup>11</sup>, Pakistan seeks to reduce the threat of Afghan Taliban fundamentalists. The international community is mostly concerned about Pakistan's role in counter terrorism. Further, there is little concern that Pakistan will use nuclear weapons against its fundamentalist adversaries because they could not be legitimately or precisely targeted by such weapons. According to my model, nuclear weapons are not effective in counterterrorist operations. But they are useful in Pakistan's efforts to restrain India.

Next let's think about Pakistan's strategy. First of all, the objective of Pakistan's nuclear strategy is to keep India from using its nuclear weapons. The international community is confident that both Pakistan and India are restrained from using nuclear weapons. So Pakistan's nuclear arsenal remains effective simply as a threat. Further, even though Pakistan's other objective is to counter the threat of terrorism from Afghanistan, Pakistan will not employ nuclear weapons in its opposition to the terrorists.

Second, consider Pakistan's ways, or alternative courses of action. As noted, Pakistan's nuclear weapons will not be employed. Pakistan relies on deterrence, because Pakistan expects to negotiate its border issues with India.

Third, the international community has not sought to determine how many nuclear warheads Pakistan possesses. This fact is very strange, since traditional thinking about nuclear weapons strategy was based on quantity. However, the perception that Pakistan maintains a nuclear arsenal suffices in its current strategy of deterrence. Therefore, Pakistan can rely on the perception that it holds nuclear weapons, regardless of the numbers.

Further, consider the impact of Pakistan's nuclear program on the international community and India. Most of the global media announced that Pakistan had acquired nuclear weapons, and the UN acknowledged the acquisition. Initially, the international community saw this as a problem, but as time passed concern subsided. Finally Pakistan's nuclear weapons program was simply accepted internationally as a *fait accompli*.

Thus, Pakistan's nuclear strategy has succeeded. They announced that they needed nuclear weapons as a counterweight to India, with deterrence as the essence of their strategy. In this way Pakistan circumvented its violation of the NTP with diplomatic initiatives. The Pakistan case reveals that the international community will reluctantly accept new nuclear states who can credibly claim they need the weapons to deter potential adversaries.

Let's review the Pakistan case: First of all, Pakistan's goal was to counter the threat from India. Its way was to deter potential Indian aggression. Its means was to acquire a small nuclear arsenal. Therefore, Pakistan's nuclear weapon had limited global impact while contributing to regional stability. Furthermore, the impact of Pakistan holding a nuclear weapon yielded some global influence for this nation. But we cannot overlook the possibility of a hidden agenda in this case.

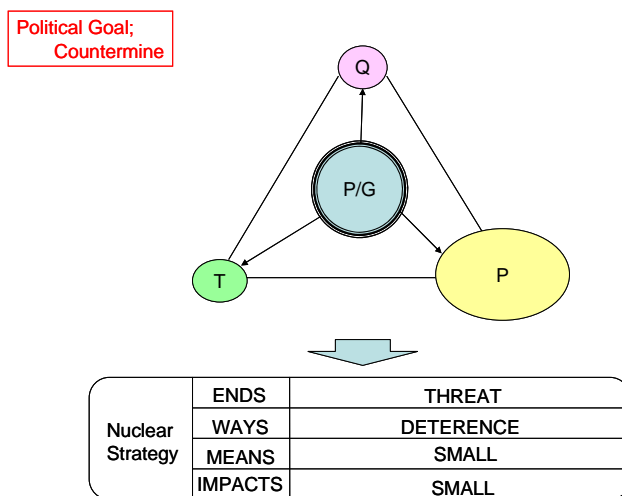


Figure 5. Pakistan NS Model

### The Case of North Korea

Next we will analyze the case of North Korea. In this case the international community is reacting differently than in the cases of Pakistan and India. The reason may be that North Korea's political goal has been too obscure.

First, we will clarify North Korea's political goal. This is complex, but we have clues. Consider the dynamics of North Korea's relationship with other countries, including the U.S.

North Korea does not think that they are militarily superior to Japan or China, because North Korea recognizes that it has no grounds for such a claim. However, North Korea fired a test missile over Japanese territory about five years ago. And North Korea has indicated its intent to develop nuclear weapons. So I think North Korea has revealed its grand strategy and a related political goal. What is that? North Korea needs nuclear weapons as a wildcard against the U.S. and South Korea, especially in anticipation of reunifying with South Korea. Despite North Korea's extreme national poverty, acquisition of nuclear weapons gives it parity in negotiations over reunification. In order for North Korea to ease the burden on South Korea in reunification, it must close the economic gap. As in the case of German reunification, South Korea will have to make up for a huge economic gap in the event of reunification. However, South Korea can agree to reunify as long as South Korea receives some economic support. Since the international community, and especially the U.S., fears the consequence of North Korea's acquisitions of nuclear weapons, the U.S. will offer generous support to South Korea to offset the cost of reunification in return for the nuclear disarmament of the newly unified country.

North Korea knows that the U.S. will endorse reunification of the Korea Peninsula. The U.S. will eagerly support a South Korean initiative to reunify. Then the North Korean wildcard will come into play: North Korea will negotiate with the U.S. on the terms of reunification. Ultimately, the U.S. will withdraw its forces from Korea and pay part of the cost of reunification in return for dismantling the North Korean nuclear arsenal.

The obvious North Korean political goal is to have the wildcard to obtain economic assistance for unification with South Korea. But this political goal must survive the pressures of international sanctions. Since China is a key player in this international game, North Korea's chances of survival are good.

According to a Japanese analysis of the Korean situation<sup>12</sup>, Kim Jong-Il is considering the Libya model<sup>13</sup>. That is, North Korea may attempt to salvage its regime by giving up its nuclear weapons, just as Khadafy saved his regime in Libya. This does not seem plausible, because so far North Korea has rejected U.S. calls for IAEA inspections of its nuclear program. There are three possible reasons North Korea may have for its nuclear weapons program:

1: North Korea's nuclear program is to deter the military of the U.S., Japan, China, and South Korea.

2: North Korea's nuclear program helps maintaining the present regime in power and is useful as a bargaining chip with the U.S.

3: North Korea is willing to abandon its nuclear program in exchange for enormous economic support.

Despite these options, North Korea must negotiate with the international community.

Next, consider North Korea's nuclear strategy. The ends of its nuclear strategy is probably to gain some diplomatic leverage<sup>14</sup>. And its way is to pose an offensive nuclear threat, first of all in the regional context<sup>15</sup>. Further, the U.S. recognizes that North Korea has the capability to strike U.S. forces in the region, especially in Japan. Therefore its way is to threaten U.S. presence in the region.

On the other hand, we cannot precisely determine North Korea's capability. Apparently North Korea has very few nuclear warheads. But we cannot be sure, although the U.S. may have reliable intelligence of North Korea's nuclear capability.

How about impact? In this case, it was important for North Korea to announce its acquisition of nuclear weapons. This announcement shocked some Asian countries and the U.S. - as well as the international community. But currently, North Korea's nuclear strategy is succeeding.

Finally we must acknowledge that North Korea may develop the capability to deliver nuclear weapons anytime, anywhere. So we must prepare for the worst.

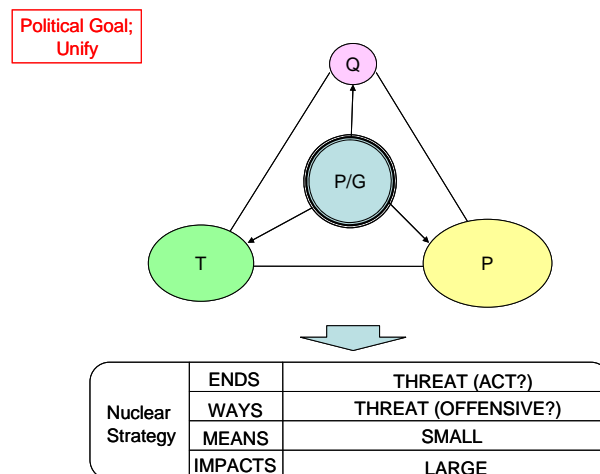


Figure 6. North Korea NS Model

### Classification of Nuclear Strategy

We have three classic nuclear strategies. One is a Cold-War strategy, a strategy of deterrence. The second is a threat-based strategy. The third is a strategy of promulgation – an announced nuclear weapons program.

The deterrence strategy affirms the importance of resources, technology, and mutual recognition of rivals. Both resources and technology are vital to building and sustaining nuclear weapons, so observers can monitor the flow of resources and technology and thus control

proliferation. But nations that adopt this strategy must announce their holdings and their intentions. So we can analyze their national strategy or political goals. As we assess their national strategy or political goals, we can devise countermeasures.

The threat-based strategy creates confusion. The capabilities of the threatening nation are not clearly known. Further, we cannot be certain of the intent of the threatening nation. For example, North Korea may threaten Japan in order to alleviate North Korean poverty. In such a case, the weapons may be effective as long as they are not used. Therefore we must continue negotiations with the nations that use the threat-based strategy. Further we must take its announcements seriously. And such attention is evidence that its strategy is succeeding.

The promulgation strategy of clarifying intent seems relatively safe and constrained, but we assume risk in trusting in the promulgations. The nations that adopt this strategy may sell their nuclear weapons to other less trustworthy parties. Even though they may not deploy nuclear weapons, they can share them. This is a perilous prospect. If terrorists get nuclear weapons, they will most likely attempt to use them.

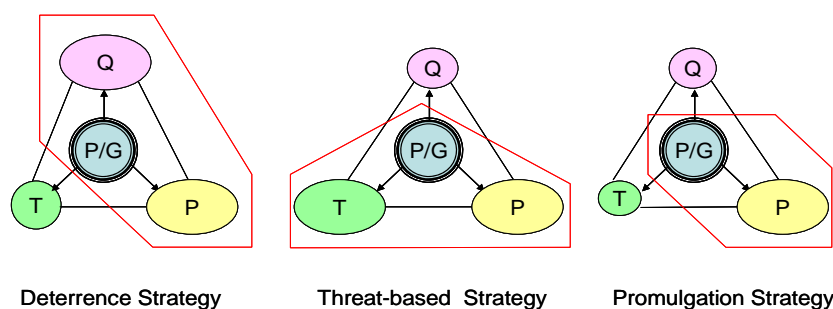


Figure 7. Classification of Nuclear Strategy

### The Utility of Nuclear Strategy Models in GWOT

I have analyzed three types of nuclear strategy. However, we should consider one more strategy. This strategy accounts for such terrorist attacks as the 9/11 attack against the U.S. Fortunately, terrorists have not yet launched a nuclear attack. However, we must assume that terrorists have a nuclear strategy. Let's consider what a terrorist nuclear strategy looks like.

First of all, the poison gas attack by AUM Shinrikyo<sup>16</sup> (a Japanese religious cult) provides some strategic insight. AUM Shinrikyo secretly manufactured the poison gas Sarin<sup>17</sup>. The AUM Shinrikyo attack succeeded largely because it was unanticipated; no countermeasures were taken. The attack left over 5,500 victims in its wake.

But what was AUM's strategic goal? AUM Shinrikyo intended to conquer the world. They believed they could prevail by means of a simple dramatic action. So they made their poison

gas secretly. And indeed they launched a successful attack. Will terrorists use nuclear weapons similarly? We can offer two answers. First, terrorists may negotiate their demands with a rival organization, usually a nation-state. They will use a threat type strategy like North Korea. This strategy presents a significant problem. We can negotiate the solution diplomatically or politically, but the second course of action is more problematic. If terrorists intend to secretly acquire nuclear weapons like AUM did, how can we counter their strategy? As depicted in Figure 8, we realize we cannot understand the intention of terrorists because they will not announce their nuclear capabilities. They will think only about quantity and targets. Targets are very important for them.

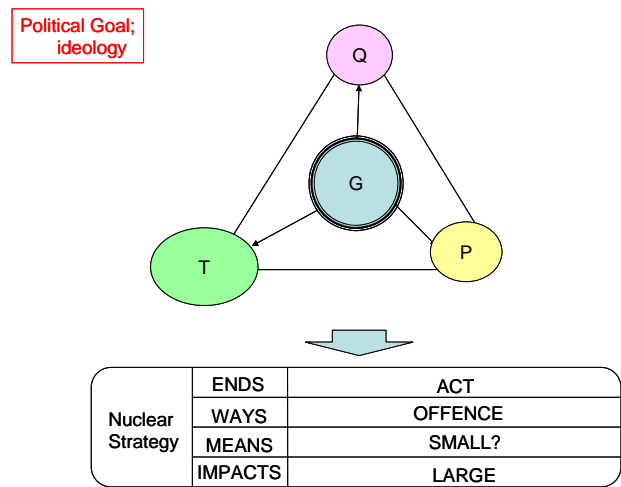


Figure 8. GWOT NS Model

Likewise, we will not know their strategic goal. They will not have political goals; they seek only recognition and self-actualization. And their goal will usually be ideological, religious, or idealistic. Why do the terrorists of the Middle East hate the U.S.? I have an opinion. The world hosts a variety of democracies<sup>18</sup>, not only American democracy but also Middle Eastern democracy. However, I am primarily aware of U.S. ambitions to expand American democracy in the world. Historically, the U.S. has certainly succeeded in this endeavor. Japan and Germany could accept American democracy because it was easy for their cultures to adapt to it. For example, Japanese religion was weak and the U.S. General Headquarters (GHQ) controlled Japan following World War II<sup>19</sup>. In Germany, the Hitler regime had been totally discredited and destroyed.

How about the Middle East? The Middle East is the center of the Islamic world, and of course possesses a Muslim culture. The region has complex problems of race, resources, and history. Regional variants of democracy are unique, because they must be applied to a Muslim-oriented governing system. This makes it difficult to accept an American form of democracy



imposed from without. This is a historical problem. But the U.S. perhaps lacks a profound understanding of the history of the Middle East<sup>20</sup>.

The AUM case suggests the need for countermeasures in a GWOT nuclear strategy. In GWOT, since the adversaries are specific organizations, not nation-states, traditional political goals become irrelevant. Also quantity is not important because their intention is to act as soon as possible, so they will not rely on stockpiles of nuclear weapons. But their targeting intention is the most important thing, because they will want to get maximum effects from their nuclear attacks. So they probably will not announce their acquisition of nuclear weapons. In the GWOT, Weapons of Mass Destruction (WMD)<sup>21</sup> – especially nuclear weapons – present an unprecedented threat.

We now have four nuclear strategy models. Next we will speculate on who the next party to obtain nuclear weapons might be.

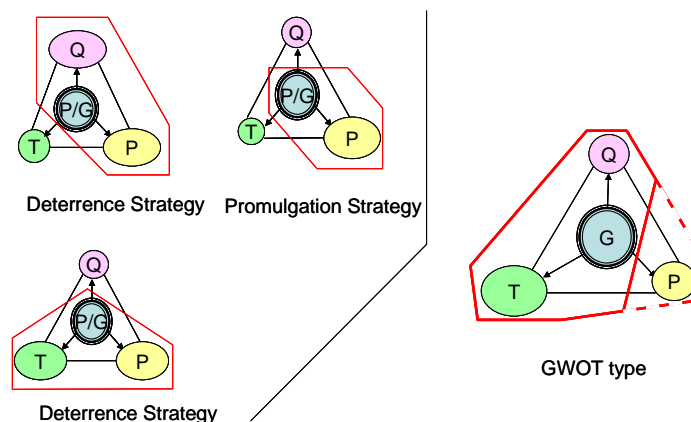


Figure 9. Classification of Nuclear Strategy

### Who Will Make Next Nuke?

According to “The Nuclear Tipping Point: Why States Reconsider Their Nuclear Choices”<sup>22</sup>, Many countries – Egypt, Syria, Saudi Arabia, Turkey, Germany, Japan, South Korea, Taiwan – intended to establish the nuclear weapons during Cold War era. However, since the end of the Cold War, the situation has changed dramatically.

We are truly entering a VUCA strategic environment. We fear a WMD attack and must acknowledge that GWOT may include nuclear attacks. We have witnessed emergence of new nuclear weapons-holding countries in spite of the NPT. The evidence shows us the great possibility and likelihood that other nations will make nuclear weapons.

On the other hand, we must reassess the meaning of acquiring and sustaining nuclear weapons. War is certainly one way to achieve a political goal. But nuclear weapons are too

dangerous to use indiscriminately. Nuclear weapons must be controlled by countries that are mature, reasonable, and legitimate. Nuclear weapons have the potential to destroy many human beings, perhaps millions. No one needs to remind the Japanese people of the destructive capabilities of nuclear weapons.

Even so, nations and extremist organizations seek incessantly to acquire such weapons. Who will be next? Iran, Israel, Japan,       ?

## Iran

Consider Iran's nuclear ambitions.

First of all, think about Iran's political goal. Perhaps Iran wants the international community to withdraw economic sanctions. We cannot affirm that economic sanctions are effective, but they may damage Iran's national power. So Iran wants these sanctions lifted. This is a political goal for Iran. And Iran knows the Iraqi situation. As I understand it, Iran claims not to be building nuclear weapons, but to be building up its civil nuclear capabilities. But as they are actively pursuing the civil capability, Iran appears to be preparing to make nuclear weapons. This evidence shows us that Iran wants international society to negotiate.

Second, consider Iran's nuclear targeting intentions. We know Iran does not now have the capability to launch a missile to the U.S. homeland. But it is important for Iran to hold nuclear weapons as a defense against an attack on their homeland. Therefore Iran does not have obvious targets, so Iran is thinking about nuclear weapons as a "Wild Card" in this case.

Finally, just as North Korea is using nuclear weapons as a "bargaining chip," we should consider that Iran will use nuclear weapons to negotiate with the international community. Currently, Iran has few, if any, nuclear warheads. So Iran must want to get nuclear weapons to negotiate. Then the world will seek to control the WMD in Iran.

## Israel

Why would Israel seek to make or operate nuclear weapons? In fact, Israel has already made nuclear weapons<sup>23</sup>. My model explains Israel's rationale: Israel did not announce its acquisition of nuclear weapons because it had no reason to do so. Israel does not intend to use the nuclear weapons for negotiation. As we watch the struggle between Israel and Hezbollah, we know that Israel realizes that a nuclear attack cannot settle their problem. Further Israel realizes that international society will not accept its use of nuclear weapons. In the final analysis, Israel's nuclear weapons cannot suppress Hezbollah's terrorism.

Nonetheless, Israel's targeting is undeniable: Hezbollah. Israel has launched many non-nuclear missiles across the Lebanon's border to destroy Hezbollah targets. If Israel could

sufficiently isolate Hezbollah, Israel might risk a nuclear attack on such a target. Beyond security, Israel's goal is to co-exist with other Middle Eastern countries. Because Hezbollah denies Israel's right to exist, Israel's political goal is to eliminate Hezbollah using nuclear weapons, if possible.

So Israel has the will to use nuclear weapons to destroy Hezbollah.

According to some intelligence<sup>24</sup>, Israel has a sufficient quantity of warheads and appropriate technology to launch a nuclear attack. But we have no way to inspect Israel's nuclear weapons. Further, If Israel announces that it holds nuclear weapons that will leave the Middle East in confusion. It might even spark World War III through an expansion of Middle Eastern warfare. We must pay attention to Israel, whether it announces holding nuclear weapons or not. If Israel launched nuclear weapons accidentally, we would face a potentially disastrous situation - perhaps WWII?

## Japan

Japan is the only country to have endured a nuclear attack. The Japanese people experienced first-hand the devastation wrought by two atomic bombs.

Japan is certainly capable of making nuclear weapons. However, Japan has no intention of doing this. The Japanese realize nuclear weapons will not make the country secure. Further, acquisition of nuclear weapons would jeopardize regional and global relationships. Japan depends on foreign countries for many resources. Economic or diplomatic Isolation could be a fatal problem for Japan. Therefore, the Japanese strategic and political goal is to co-exist with international society<sup>25</sup>.

Furthermore, Japan has no nuclear targets to attack. And Japan obeys international regulations and rules restricting nuclear weapons. Every year Japan accepts an IAEA inspection.

On the other hand, some Japanese politicians have claimed that Japan should make or obtain nuclear weapons. I must say such claims make no sense, because politicians must reflect public opinion. And the Japanese people support the policy that Japan will not seek to make, hold, or obtain nuclear weapons. I think that some Japanese politicians are seeking to take advantage of the value of nuclear weapons. It is a definite disadvantage for non-nuclear nations not to have a nuclear "Wild Card". So some misguided Japanese politicians are attracted to the "Wild Card" advantage.

## South Korea

South Korea tried to make nuclear weapons secretly in the 1970s, but the United States detected South Korea's program and had South Korea given it up. Now that North Korea has

built nuclear weapons, the idea that South Korea wants nuclear program looks more rational. However, according to my model, South Korea cannot confirm their targets. Even the United States is uncertain as where North Korea's nuclear facilities are located.

So, according to my analysis, South Korea does not intend to make nuclear weapons. And the impact of South Korea obtains nuclear weapons would be too large. The domino theory may be valid regarding nations' acquisition of nuclear weapons in the Far East. If South Korea refuses to react to North Korea's acquisition of nuclear weapons by not developing its own nuclear weapons program, then the dominoes may not fall in the region.

#### Taiwan

Taiwan intends to make nuclear weapons. Taiwan's political goal is to achieve independence from China. If Taiwan gets nuclear weapon, it may achieve this independence, because nuclear weapon becomes a countermeasure against the Chinese threat.

On the other hand, Taiwan's acquisition of nuclear weapons would have a huge impact and might force China to take action. This is the biggest problem. China now believes it is surrounded economically and militarily by India, Japan, and the U.S. If Taiwan adds to their pressure, it will stifle China's expansion. So China is always vigilant of Taiwan's efforts to make nuclear weapons. Further, China is the lead nation in the Six-Party Talks with North Korea. So if China gets any evidence of a Taiwanese nuclear program, China will use the Six-Party forum to negotiate with the U.S. regarding Taiwanese activities.

Therefore, according to my model, Taiwan cannot make or hold nuclear weapons.

#### Egypt and Saudi Arabia

Egypt controls the Suez Canal- a gateway to global trade. And Egypt wants to regain the area along their border with Israel. If Egypt used nuclear weapons to greatly damage the Suez Canal, huge confusion and economic disaster might follow. And Egypt would lose an important economic asset.

Like Egypt, Saudi Arabia may consider the acquisition of nuclear weapons. But the Saudi's political intentions and nuclear targeting are uncertain.

According to my model, neither of these countries will seek to make or hold nuclear weapons.

Africa – Tunisia, Somalia, South Africa

Libya has already abandoned its nuclear weapons. How about Tunisia or Somalia or South Africa? According to my model, they would be constrained to announce the fact that they intend to hold nuclear weapons. But they had never announced this intention.

On the other hand, their targets are not clear. But if they had nuclear weapons, they would see it increasing the prestige of their country, and they potentially could use them.

However, we cannot deny the evidence that U.S. has established a US Africa Command, which may mean that an African nation can acquire nuclear weapons. We continue to pay attention to Africa. We must not forget that *poor countries can finance their nuclear weapons by exporting other military material, as North Korea has done*<sup>26</sup>.

Terrorists

The 9/11 attacks have threatened world peace. Unlike the surprise attack on Pearl Harbor<sup>27</sup>, the 9/11 attacks were perpetrated by non-state actors. Whereas the U.S. retaliated against the Axis allies of Japan and Germany to curb their aggression, the U.S. is confronting a more amorphous, illusive, and evasive enemy that conducted the 9/11 attacks<sup>28</sup> and precipitated the GWOT<sup>29</sup>

We cannot effectively use nuclear weapons against terrorists. On the other hand, terrorists have free hand to use nuclear weapons. If terrorists had used nuclear weapons for the 9/11 attacks, a nuclear holocaust could have ensued. We must consider the prospect of terrorist-deployed nuclear weapons.

Most terrorists justify their actions on the basis of faith or ideology, which they believe impels them to destroy their enemies. Unfortunately, we cannot devise a counter strategy or countermeasure for their nuclear attack. We currently have limited countermeasures against WMD if terrorists refuse to announce their intentions or their grievances.

However, they need extensive production facilities to make nuclear warheads. Otherwise they must buy or import nuclear warheads. After AUM Shinrikyo made poison gas, the Japanese police inspected their plants. But the police could not detect poison gas- because the police were unaware that AUM made poison gas. To detect terrorist weapons, it helps to know what kinds of weapons the terrorists want to use. Further, we must not forget that the enemy is not necessarily rational.

On the other hand, the Cuban crisis shows us that nuclear weapons can be countered through negotiation. We can monitor nuclear weapons. But treaties or agreements on nuclear

weapons will not fully control acquisition or use of nuclear weapons. We must devise more fail-safe controls.

### Conclusions

North Korea's case is ironic, because North Korea continues to make nuclear weapons in spite of sanctions and threats. According to my model, we could negotiate with them or devise more effective countermeasures. It is possible that we misunderstand North Korea's motivation to build nuclear weapons. We thought that North Korea would stop making nuclear weapons because North Korea's political goal was to get economic support from the international community, and North Korea's manufacture of nuclear weapons would cause the international community to cease its economic support. Everyone presumed that the great powers- the U.S. and China - had convinced North Korea to stop making nuclear weapons, that North Korea had made a reasonable choice. However, North Korea chose to gamble for higher stakes. North Korea seems to be using its nuclear program as a big bargaining chip to entice the U.S. to offer more generous financial support for reunification in exchange for the guarantee of a non-nuclear Korea.

We can analyze several factors regarding nuclear weapons. But we must devise a comprehensive nuclear strategy. So I accepted the challenge of building a nuclear strategy model based on my research of nuclear strategy in this SRP. I believe that 21st century nuclear strategies must be based on such models.

Furthermore, we must acknowledge that nations or non-state actors have the option to use all kinds of weapons to execute their strategy. And we cannot rely on others' strategy completely, even though we have analyzed their strategy in detail. The system for formulating U.S. strategy is procedurally rational and logical. Everyone acknowledges that the U.S. has sufficient power to achieve its national objectives. On the other hand, other countries, especially Japan, certainly lack a comprehensive national strategy. But this might be based on our strategic culture<sup>30</sup>. We do not know precisely what strategy Russia employed during the Cuban Missile Crisis. We cannot even know whether Graham Allison's *Essence of Decision* offers a precise analysis of Soviet decision-making in that crisis.

However, we must analyze strategy because nations or actors do proceed according to their own desires. In the Japanese case, the national culture requires that strategy remain secret. We believe that our strategy should be obscure because we want others to be unsure of our intentions, especially our estimate of the international environment. So we must seek the means to analyze other's strategy.

Finally, I have some questions about U.S. strategy: "Why does the U.S. announce its national strategy?" Further, "Does the U.S. assume some risk in disclosing its strategy?" Nuclear strategy should usually be secret because nuclear weapons are strategic tools to achieve the political goals of nations that possess those weapons.

We must resolve every nuclear crisis situation in the world. Because nuclear weapons are so destructive, the universal strategic objective should be to build a peaceful alternative to coercive nuclear strategies.

### Endnotes

<sup>1</sup> *Real-World Nuclear Deterrence: The Making of International Strategy* follows the post-Cold War threat of nuclear weapons, surveying the major powers which maintain about 27,000 nuclear weapons to date, and using new sources from international archives and scholarship to consider the latest issues revolving around deterrence strategies. One might anticipate such a book would be geared towards military specialists, but an attention to clear language and historical references lends to lay reader understanding.

<sup>2</sup> *Essence of Decision: Explaining the Cuban Missile Crisis* : an analysis, by political scientist Graham T. Allison, of the Cuban Missile Crisis. Allison used the crisis as a case study for future studies into governmental decision making, and in doing so revolutionized the field of international relations.

<sup>3</sup> Ibid

<sup>4</sup> *Real-World Nuclear Deterrence*

<sup>5</sup> *William D. Hartung : the President's Fellow at the World Policy Institute at New School University and a military affairs advisor to Foreign Policy in Focus, a joint project of the Interhemispheric Resource Center and the Institute for Policy Studies.* Foreign policy issues were mostly an afterthought during the year 2000 presidential campaign, and they continue to take a back seat in George W. Bush's discussions of the priorities of his incoming administration. But one critical foreign policy issue--US nuclear weapons policy--demands immediate attention and debate. The Bush foreign policy team is quietly contemplating radical changes in US strategy that could set off a global nuclear arms race that will make the US-Soviet competition of the Cold War period look tame by comparison

<sup>6</sup> Strategy Formulation Model

<sup>7</sup> William Perry -- Managing Conflict in the Post-Cold War Era

<sup>8</sup> START1, START2, NPT

<sup>9</sup> Arms Control Association. Arms Control Association Website.<<http://www.armscontrol.org>>

<sup>10</sup> Jane's International Defense Review : Nuclear Launch Systems

<sup>11</sup> *Mullahs on the Mainframe- Islam and Modernity among the Daudi Bohras*; In the post-cold war world, Muslim fundamentalists seem to have replaced Soviet Communists as the West's bugbear of choice, and the values of traditionalist Islam are often portrayed as inherently hostile to those of a modern, pluralistic society. Jonah Blank's groundbreaking book shatters many of these stereotypes. As the first outsider to gain entry to the Daudi Bohra community (a unique Shi'a denomination numbering one million, concentrated in South Asia but spread throughout the world), Blank provides a firsthand account of a society that sees no contradiction between Islamic tradition and full-fledged modernity. The Bohras faithfully uphold orthodox Muslim practices: in matters of prayer, dress, and even avoidance of financial interest, they are highly conservative. At the same time, they eagerly adopt aspects of modern culture not in direct conflict with their core beliefs. They proudly send their children (boys and girls alike) abroad for education, exhibit greater gender equality than almost all communities of the Indian subcontinent, and have become Internet pioneers uniting members of the far-flung denomination into a worldwide cyber-congregation.

<sup>12</sup> *The Peninsula Question* Youichi Hunabasi 2006.09

<sup>13</sup> Libya model: Khadafy assumes the U.S. to maintained his regime in stead of abandoning nuclear program.

<sup>14</sup> Harris, Stuart. *Political Crises in Northeast Asia: An Anatomy of the Taiwan and Korean Crises*. Canberra, Australia, Research School of Pacific and Asian Studies, Australian National University, 2001. 28 p. Carpenter, Ted Galen and Bandow Doug. *The Korean Conundrum: America's Troubled Relations with North and South Korea*. New York, Palgrave Macmillan, 2004. 218 p.

<sup>15</sup> Harrison, Selig S. *Korean Endgame: A Strategy for Reunification and U.S. Disengagement*. Princeton, NJ, Princeton University Press, 2002. 409 p.

<sup>16</sup> *Religious Violence in Contemporary Japan: The Case of Aum Shinrikyo*

<sup>17</sup> Sarin, also known by its NATO designation of GB (O-Isopropyl methylphosphonofluoridate) is an extremely toxic substance whose sole application is as a nerve agent. As a chemical weapon, it is classified as a weapon of mass destruction by the United Nations according to UN Resolution 687, and its production and stockpiling was outlawed by the Chemical Weapons Convention of 1993.

<sup>18</sup> *Earth Democracy: Justice, Sustainability, and Peace:Eric Delss, RA, works with for Agoos/Lovera Architects in Philadelphia.*

<sup>19</sup> Allinson, Gary D. *Japan's Postwar History*. Ithaca, NY, Cornell University Press, 2004. 223 p. "Japan's Postwar History is the only book that provides an integrated analysis of Japan's social, political, and economic history from 1932 until the present day. Gary D. Allinson has substantially updated his work for a second edition that takes Japan from the bursting of the economic bubble through the long recession of the 1990s and up to 2003."

<sup>20</sup> <http://www.globalissues.org/Geopolitics/MiddleEast.asp>

<sup>21</sup> *National Strategy to Combat Weapons of Mass Destruction* Dec 2002



<sup>22</sup> Kurt Cambell, Robert Einhorn, Mitchell Reiss 2004

<sup>23</sup> <http://www.fas.org/nuke/guide/islare/nuke>

<sup>24</sup> The peninsula question by Yoichi Funabashi

<sup>25</sup> Benfey, Christopher E. G. *The Great Wave: Gilded Age Misfits, Japanese Eccentrics, and the Opening of Old Japan*. New York, Random House, 2003. 332 p. Colignon, Richard A. and Usui, Chikako. *Amakudari: The Hidden Fabric of Japan's Economy*. Ithaca, NY, ILR Press, 2003. 224 p.

<sup>26</sup> <http://www.foreignaffairs.org/20004101faessay83107/graham-allison/how-to-stop-nuclear-terror.html?mode=print>

<sup>27</sup> *Day Of Deceit: The Truth About FDR and Pearl Harbor* by Robert Stinnett

<sup>28</sup> *Psychology of Terrorism*: University of South Florida, Tampa, FL: 2004

<sup>29</sup> *The War on Terror in Historical Perspective*.

<sup>30</sup> Blaker, Michael. *Case Studies in Japanese Negotiating Behavior*. Washington, DC, U.S. Institute of Peace Press, 2002. 170 p.

